

REMARKS

The Office Action dated January 25, 2005 has been reviewed carefully and the application has been amended in a sincere effort to place the application in condition for allowance. All objections and rejections are respectfully traversed.

Claims 37 – 46, 55 – 58, 62, 63, 65, 66, 68 – 73, 96 – 99, 101 and 102 are pending in the application.

Claims 47 – 54, 59 – 61, 64, 67, 74 – 95 and 100 were withdrawn in response to the restriction requirement.

In paragraph 5 of the Office Action, the Examiner objected to the amendment filed on September 1, 2004 on the basis that it introduces new matter into the disclosure. This objection has been addressed in that the word “open” has been deleted by the current amendment.

At Paragraphs 6 and 7 of the Office Action, the Examiner has rejected claims 37 – 43 and 45 under 35 U.S.C. § 112, first paragraph. The language the Examiner indicated as not supported by the original disclosure includes the word “open” which has been deleted in the present amendment.

In Paragraphs 8 and 9 of the Office Action, claims 37 – 46, 55 – 58, 62, 63, 65, 66, 68 – 73, 96 – 99, and 101 – 102 were rejected under 35 U.S.C. § 102 (e) as being anticipated by United States Published Application No. US2002/0172851, now United States Patent No. 6,632,553 to Corey et al. (“Corey”).

The present invention as set forth in amended representative claim 37 comprises
in part:

A direct oxidation fuel cell, comprising

(A) a catalyzed membrane electrolyte, having an anode aspect and a cathode aspect;

(B) a fuel cell housing enclosing said fuel cell with an anode chamber being defined between said anode aspect of the catalyzed membrane electrolyte and an exterior portion of said cell housing, said fuel cell housing also including a cathode chamber being defined between said catalyzed membrane electrolyte and an exterior portion of said fuel cell housing, opposite said anode chamber;

(C) a direct fuel feed into said anode chamber that has no liquid exit port such that liquid that is present in said anode chamber cannot exit said anode chamber except across said catalyzed membrane electrolyte;

(D) *at least one gaseous effluent release port in said anode chamber, which is in substantially direct gaseous communication with the ambient environment, to vent gaseous product of an electricity-generating reaction from said anode chamber to the ambient environment, and not into said cathode chamber, as said gaseous product is generated;* and

(E) a load coupled across said fuel cell, providing a path for electrons produced in electricity generating reactions of said fuel cell.

The background of the Corey reference has been discussed in detail in prior prosecution. Applicant respectfully urges that Corey does not show Applicant's claimed novel feature of *at least one gaseous effluent release port in said anode chamber, which is in substantially direct gaseous communication with the ambient environment, to vent gaseous product of an electricity-generating reaction from said anode chamber to the*

ambient environment, and not into said cathode chamber, as said gaseous product is generated

As noted, the Corey system includes a modification in the membrane electrolyte to allow carbon dioxide to travel from the anode chamber into the cathode chamber to promote water management. Applicant's invention as claimed in the present application does not rely upon travel of anodically generated gaseous product through the membrane electrolyte into the cathode chamber. Instead, as claimed, the gaseous product is vented as it is generated to the ambient environment through a gaseous effluent release port in the anode chamber, which is in direct communication with the ambient environment. The gaseous product is vented as it is generated, and it not vented into the cathode chamber.

Applicant thus respectfully urges that the Corey patent is legally precluded from anticipating the claimed invention under 35 U.S.C. § 102 because of the absence from the Corey patent of Applicant's novel concept of ***at least one gaseous effluent release port in said anode chamber, which is in substantially direct gaseous communication with the ambient environment, to vent gaseous product of an electricity-generating reaction from said anode chamber to the ambient environment, and not into said cathode chamber, as said gaseous product is generated.***

Corresponding amendments have been made to the other independent claims. It is respectfully submitted that the present amendments to the independent claims overcome the Examiners rejections and objections.


At paragraphs 10 and 11 of the Office Action, the Examiner responds to Applicant's arguments filed on September 1, 2004. In response to the Examiner's comments, Applicant has herein made amendments to the present claim language such that the claim language is commensurate in scope with Applicant's arguments. All independent claims as amended are believed to be in condition for allowance.

All dependent claims are believed to be dependent from an allowable independent claim and are therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,


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